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MARCH-APRIL 1951

FEATURED IN THIS ISSUE:

A CRACKING SHELL	4
NEW M. & ST. L. OFFICE BUILDING	8
A SCHOOL OF PHOTOGRAPHY	12
FOR YOUR INFORMATION	16
A. I. A. CONVENTION	24
THEY SAID IT	28

VOLUME XV

NUMBER TWO

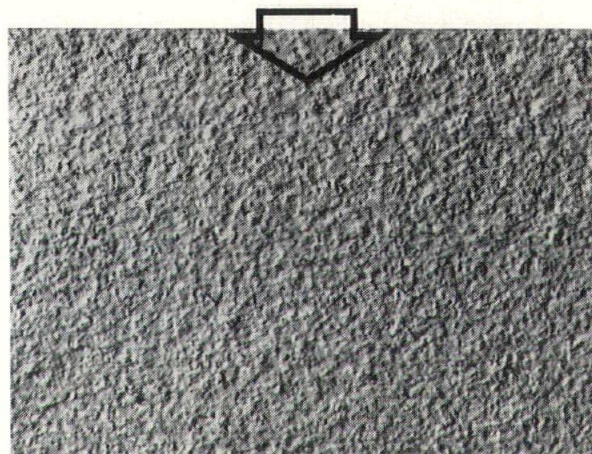


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Official Publication, Minnesota Society of Architects

A. O. LARSON, MINNEAPOLIS, President

WITHIN THIS DAY SEEDS OF TOMORROW

ARCHITECTURE holds strong forecast factors. That which is as yet not clearly seen by society appears first in buildings. At the University of California there has been a two-year battle between frightened business, timid teachers and indignant students. For thirty-four years an embarrassed University Tower had been acting an unworthy part. It seems that not only The Tower but the University itself had an unsightly hard core, sweetly curtained with academic granite. Many loyal men no longer felt free to hold the light for inquiring minds.

This fantastic inquisition cost the University Faculty the loss of forty of these good lights; discouraged the honest hearted. The blow to the prestige of the institution was severe. In February the Southern Half of this University, in Los Angeles "U.C.L.A.," which has no tower, separated from the northern "Berkeley" half, in all but the legalistic ties.

Repair of the Tower presents an unsolvable problem, short of razing it. How to repair the damage to the University where the shrink of dry Trustees, met the expansion of a humid Faculty, may continue to puzzle coming generations of University Presidents.

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VOLUME XV
NUMBER 2 1951

A CRACKING SHELL

At the University of California

by

JACOB STONE, A.I.A.

formerly

JACKSON AND STONE, Architects

Minneapolis, Minnesota

NESTLED at the foot of the Berkeley Hills is the Campus of the University of California. Standing serenely in the midst of this Campus is the gray stone Sather Tower, sometimes called the Campanile. It is 234 feet high, has a fine set of chimes, and a four faced clock below the belfry. There are formal walks and grass plots in front of it, planted with rows of English elms and a granite drinking fountain. It is one of the focal joints of the school, and students gather here between classes to sit on the big uncomfortable redwood benches or lie on the grass and get burned by the warm California sunshine.

This California sunshine is pretty "hot stuff," and it has not been too kind to the Tower. On its southeast and west sides, the granite facing has been cracking in many places for 20 years, and there are more cracks on the east and west sides where the sun is the hottest.

When this cracking was first discovered in 1940, there was great concern, as the Tower was very carefully designed and constructed in 1914. The eminent John Galen Howard of San Francisco was the architect, and his name appears in bronze letters in the brick pavement at the entrance. It was built only eight years after the great San Francisco earthquake, and for this reason the designer and builder took especial care.

Modern skyscraper construction was used for the Tower except that the structural steel does not carry the composite masonry shell at each story. However, the steel frame was painstakingly designed and erected to resist earth tremors. The whole structure rests on a foundation 18 feet below grade and consists of a grillage of steel beams encased in 8 feet of concrete. This foundation not only supports the steel frame but also carries the self-supporting masonry shell to its full 234 foot height. The masonry shell or wall is tied to the steel frame for lateral stability. Of course, in other respects it is a fake, as it has no structural value except to support

itself. The wall on each side is slightly battered in its full 234 foot height and as "masonry" consists of 8" reinforced concrete and 6" to 8" of stone. *The concrete was poured directly against the stone* and that was the tragic error. The stone courses are granite, 20" high, and the blocks are from 60" to 72" long overlapping 6" at alternate courses. The stones are tied together at the top of each vertical joint with a 1/2" galvanized round rod bent like an inverted paper staple. These are fitted into 5/8" holes drilled into the granite. Thus each stone course forms a rigid band completely around the Tower except where there are openings. This fact, I think, is the basis of the whole trouble.

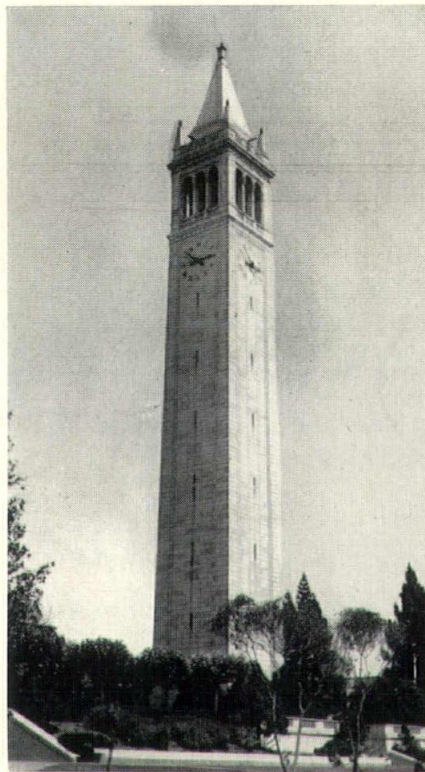
All the stone for the Tower is Raymond Granite quarried in Northern California in the Sierra foothills. It is a light gray and not as hard as eastern granites found in Minnesota, New Hampshire, and Vermont.

For more than a decade after its completion no damage of any sort was observed on the shell of the

Tower; but 13 years after its construction, a few small cracks were noticed at the Southwest, Southeast, and Northwest corners. During the next ten years the cracks continued to develop—for the most part on the sunny exposures and running from the top each block down to the vertical joints thus: From time to time small pieces of stone have fallen off, mostly on the corners, so for safety's sake, a 4 foot board fence was erected around the Tower at a distance of 10 feet from the 34 foot square base. Now the authorities are talking of filling the ten foot space around the Tower with a garden to keep people from getting hit by falling pieces of granite.

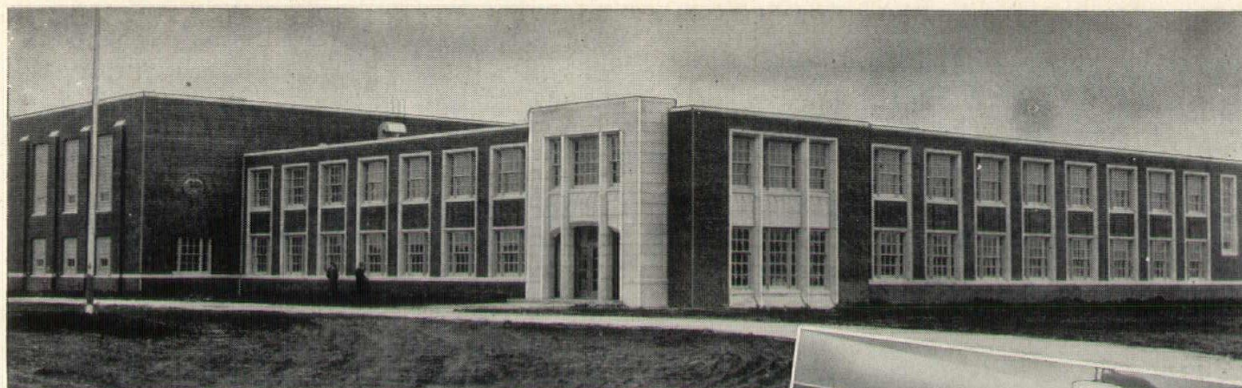
This damage to the shell of the Tower has, of course, been of great concern to the University authorities, and they have taken measures to learn the cause and take steps, if possible, to remedy the trouble. So there have been investigations and studies during the past few years carried on under the general direc-

tion of the Division of Architecture and Engineering of the University of California assisted by Mr. Walter T. Steilberg, Consulting Architect. Helping in these investigations and studies have been various architects, engineers, builders, and geologists; the United States Coast and Geodetic Survey; the National Bureau of Standards; and several quarrymen's associations. As a result of these careful investigations and studies, two progress reports have been issued. The last re-



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port concludes that it is highly unlikely that these cracks are caused by:

1. Injuries due to foundation settlement.
 2. Injuries to stone surfaces due to weathering or chemical changes such as rusting of anchors, etc.
 3. Injuries due to vibrations from various causes such as earthquake shocks, wind pressure, the striking of the clock bell, and ringing of the chimes.
 4. Possible defects in materials and workmanship.
- But the report also states that as yet, no conclusions can be reached and further investigations will be necessary.

In my opinion, it is apparent and very probable that, for the most part this cracking is due indirectly to the heat of the sun for the following reasons:

1. Most of the cracks are on the south and west sides of the Tower where the sun is hottest.
2. Day in and day out for eight months and more of each year these walls take a terrific beating from the hot rays of the California sun. This heat is carried through the six inches of granite to the concrete and steel, and the concrete and steel expand.
3. As the granite courses which ring the Tower are tightly locked together by steel and there is no give, the stone cracks at the holes drilled in the granite. This is very evident from the location and appearance of these cracks.

Granite becomes harder and more brittle with age and exposure to the air. This loss of elasticity would explain the lag in time in the appearance of cracking and the rapid acceleration in recent years.

Relatively little information is available on the properties of Raymond Granite other than its compressive strength, and it has therefore been necessary to make some special tests to get the needed information. To date, the results of these tests have not been encouraging as an explanation of the time factor in the cracking. It now seems more probable that very fine cracks developed soon after the Tower was completed but that they were not observed until much later. Even today it is necessary to employ binoculars to get a fair idea of the amount and distribution of the cracks.

HISTORICAL

The Sather Tower is of about the same proportions and about 3/5 the size of the Washington Monument, but its construction is entirely different. The Washington Monument being an all-masonry edifice with thick granite walls faced with marble for the first 150 feet of its height and all-marble for the upper 400 feet.

Other towers such as the modern skyscrapers are usually of less slender proportions. Their construction is unlike the Sather Tower in that the masonry exterior walls are supported at each floor level while the exterior concrete and granite walls of the Sather Tower are supported on the foundation. Going back to the Washington Monument; there has been much cracking of the marble facing which is applied to the granite backing, and almost none in the all-marble part of the walls above.

Masonry towers built at the close of the last century before the introduction of steel framing and reinforced concrete, were provided with a measure of flexibility in their jointing; the stones were laid in lime mortar which became hard near the surface, but which

at a short distance back of the surface, remained much softer than the stone, so that cracks usually followed the joints and rarely went through the stones. Such cracks could be easily repaired. While the introduction of Portland Cement mortar produced stronger and more watertight walls, the loss of flexibility produced cracks in the present day masonry. This is true of the Sather Tower. It is also true that some of the joints have opened and admitted water which is evidenced by the dark gray streaks which show on the South and West sides. It is noticeable, too, that the Raymond Granite has a high quality of absorption and that the stone remains wet for several days after a rain.

In my opinion, it would have been much better if the 8" concrete shell of the Tower had been poured entirely separate from the granite facing and not against the stone. Galvanized iron ties for the stone veneer could have been placed in the concrete. Then the 6" granite veneer could have been built with a 1" air space between the concrete and the stone. The granite should have been well tied to the concrete wall at the horizontal joints. This is like our old-fashioned brick veneer walls and provides more flexibility with no danger of cracks due to the expansion of the steel frame and the concrete.

CONCLUSION

It must be remembered that all towers are challenges to the destructive forces of nature. Perhaps the Egyptians had a smart idea in building the pyramids. These structures in the form of hills and mountains have come down through the ages and will endure even when the H-Bomb, or something else, destroys civilization. In these days when men are trying to destroy the earth by one means or another, the preservation of a fine work of architecture may seem a trivial undertaking; but there is a possibility that in seeking to preserve something of the past, one may learn to do something better in the future.

Jacob Stone, A.I.A.

Note: The details respecting the present conditions of the tower, as reported in the above article have been taken from the Second Progress Report (October, 1949) of the Investigation which is being carried on under the general direction of the Division of Architecture and Engineering of the University of California with Mr. Walter T. Steilberg, Consulting Architect in charge. I am therefore much indebted to Mr. Steilberg for the use of this report. J.S.

FOOTNOTE

**By Our Technological Editor
JOHN JAGER, A. I. A.**

IT WOULD APPEAR to this writer, from all the evidence on hand, that the cause and cure of this problem rests on acknowledgment of the disparate *expansion and contraction* as between the *granite facing* and its *concrete backing*. It appears that this is not due, principally, to the paradoxical behavior of fluctuating *temperature* differences in the summer-hot and winter-cold granite, but to the fact that *concrete* being highly hygroscopic expands and contracts on the basis of varying *moisture content*. We therefore have the remarkable condition that while

(Continued on Page 30)



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New Office Building Completed For M. & St. L. In Minneapolis

square feet. Foundation and walls can carry additional floors for future expansion.

Construction is steel and concrete frame and concrete floors. The roof is carried by steel trusses, fireproofed with a suspended ceiling of vermiculite plaster, one inch thick, on metal lath. Ducts of the air-conditioning system are concealed between the ceiling and the roof. The cooling tower for the system is fastened inconspicuously to one side of the building. Exterior treatment is cream-colored brick and polished red Minnesota granite. Copings and trim around windows are Bedford stone. Window sash is aluminum, and the made-to-order windows are double glazed throughout.

The main entrance on Franklin Avenue is recessed 8 feet to give an ornamental shadow to the center of the building. It opens on a raised terrace, 13 feet wide



Architect: Clyde W. Smith, Minneapolis
General Contractor: James Leck Co., Minneapolis
Plastering Contractor: Edwin Johnson & Sons, Minneapolis

The new million dollar general office building of the Minneapolis & St. Louis Railway in Minneapolis represents another milestone in M&St.L history for it is the first real office building the road has ever owned. Immediately following construction of its first trackage in 1871, the railway's general offices were located for several years in its depot on Second Street but were moved thereafter to various rented quarters as more space was needed.

The new building is an attractive two-story and basement U-shaped structure occupying a site about 250 feet square on the edge of the downtown business district at Franklin, Stevens and First Avenues. The front section and each wing are 61 feet wide. Frontage on Franklin is 201 feet, on First, 181 feet and on Stevens, 161 feet. The court is 78 feet wide. Over-all height is 43 feet. The floor area totals about 80,000

and 75 feet long, that is floored with stone. Doors are heavy plate glass, $\frac{3}{4}$ inch thick, with aluminum frames. The handsome lobby and main corridors are lined with walnut paneling to the ceiling and are floored with terrazzo. The main entrance stairway is six feet wide and has terrazzo treads and special aluminum hand rails.

The escalator from the first to the second floor is an unusual feature. It supplements three main stairways and two fire stairs. A service dumbwaiter between the basement and the second floor is available to carry records and bulky packages.

Trim throughout the building is fine, close-grained birch and finished walnut. Floors are equipped with

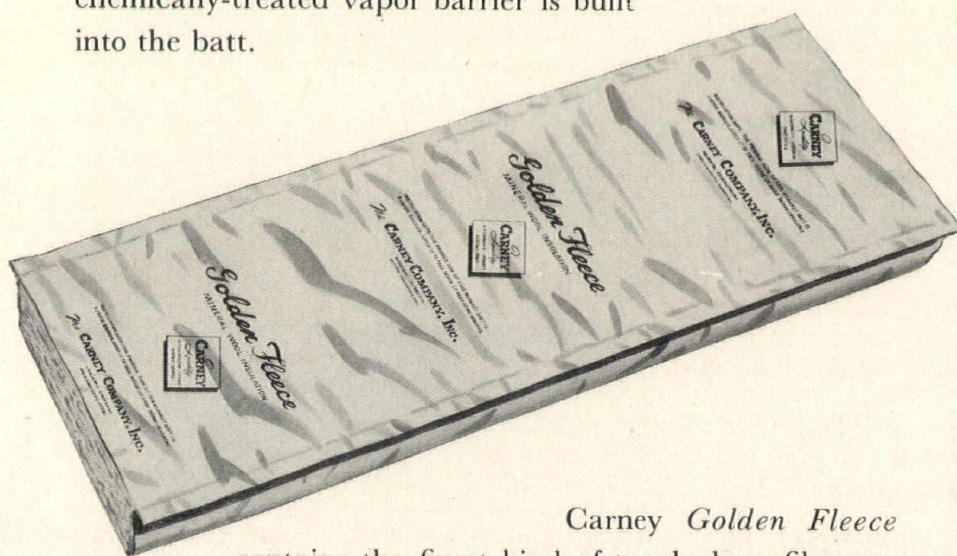


Fireproofing steel roof construction with vermiculite plaster on metal lath, one of the structural features of the new building.

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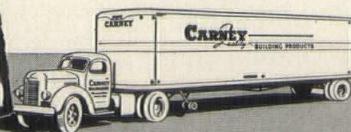
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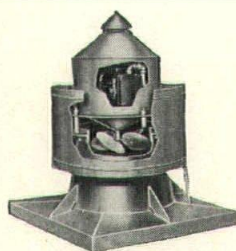
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electrical runways, or a plug-in system, so that desks can be moved about freely. Lighting is fluorescent and ceilings are acoustically treated.

Washrooms are floored with terrazzo and lined with vitreous tile. Toilet stalls are hung from the ceiling to keep the floor area clear. Executive offices have their own toilet facilities.

Two oil-burning boilers supply steam for the heating and air-conditioning systems.

A landscaped lawn surrounds the building. There is a private auto park for employes on a rear lot, in addition to the court area. Sixty cars can be accommodated without crowding.

The new building climaxes an improvement program that began in 1935, when the present management headed by Lucian C. Sprague, president, took charge. Shortly after World War I, the "Louie" had gone into bankruptcy and one of the longest receiverships in railroad history. It became the laughing stock of Mid-western carriers, and over a 20-year period was placed on the auction block forty-two times without bringing a single bid.

The first year after Sprague became president, gross revenues increased \$1,500,000 over the two preceding years but, despite this favorable showing, the Railroad Division of the Reconstruction Finance Corporation proposed to dismember the road and parcel it out among other carriers in the area. Towns and shippers served by the M&St.L, its employes, congressmen and senators rallied spontaneously to fight the plan and in 1938 the Interstate Commerce Commission ordered dismemberment proceedings dropped. A two-day jubilee celebration in Minneapolis marked the victory. The receivership ended in 1942 and a reorganization plan became effective December 1, 1943. The M&St.L is now a first-class carrier in every sense of the word with equipment and facilities that rank with the best in the nation, is entirely free of debt and shows mounting annual revenues. More than \$35,000,000 from earnings has been spent for improvements in the past fifteen years.

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Well known professionals were missing from among the winners selected from more than 1,200 entries from all of the 48 states. Thus the competition, from the sponsors' point of view, was extraordinarily successful in bringing out new talent and fresh ideas in the carpet design field.

The winners were: Leroy Wolfe, Chicago, first place and \$1,000 award; Nancy Carlson, Thorndale, Pa., second place and \$500 award; Sister Mary Remy, S.S.N.D., Chicago, third place and \$300 award.

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A School Of Photography

By
Masao Matsumoto

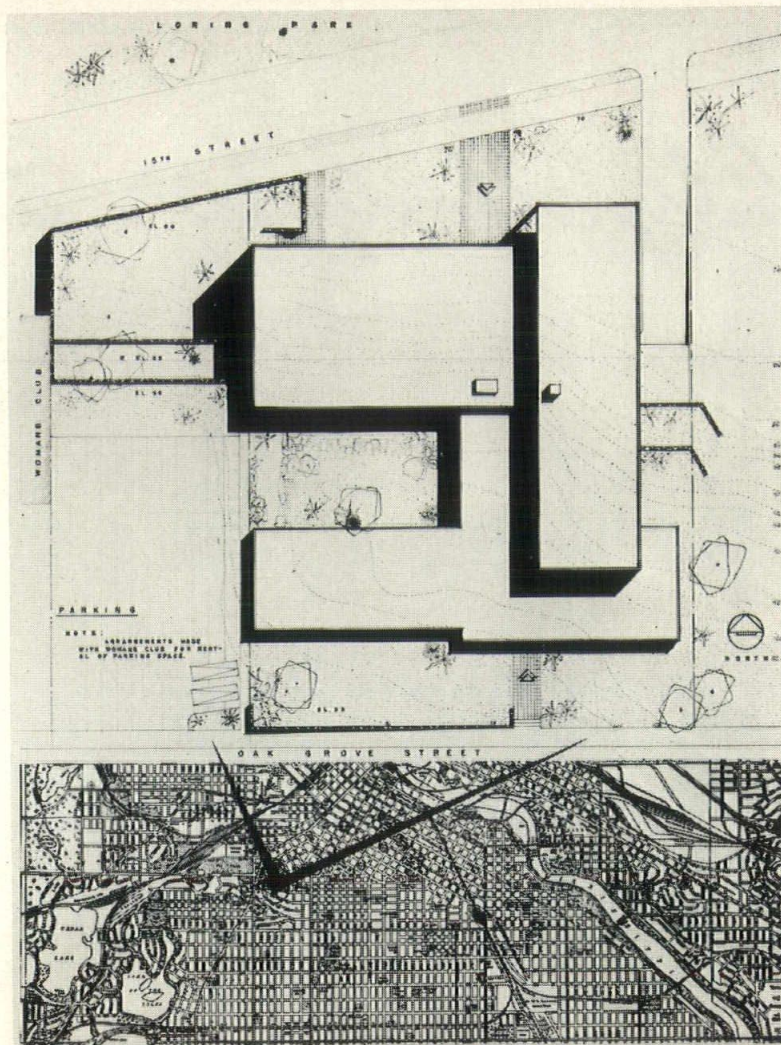
An undergraduate thesis submitted to the School of Architecture, University of Minnesota, and published here through courtesy of the school.

The specific site chosen for the school is on the fringe of the loop area (in Minneapolis), across from a beautiful park. . . . For this problem it will be assumed that the full-time student enrollment will be 125-150 students. It will be found that the interests and objectives of those who apply for photographic training are extremely varied. The majority, of course, will be seeking careers in the various branches of photography but many may seek part-time training for particular needs. . . . The part-time enrollment for specialized courses will be limited to approximately 40 students.

Although classroom work is valuable, recitation and lecture work will be given primarily to explain the principles being applied in projects and work assignments and the nucleus of the training is to be centered in the studio, darkrooms and laboratories. Field trips will be carried out as often as practicable.

The four major categories of the curriculum will comprise comprehensive courses in portraiture, com-

Certain sections of the thesis containing discussions of photography have had to be deleted because of space considerations. Nothing pertaining to architectural considerations has been removed, however. . . . Editor.



Location and vertical view of the school are shown above.

mercial photography, direct color and camera mechanics and repair. . . .

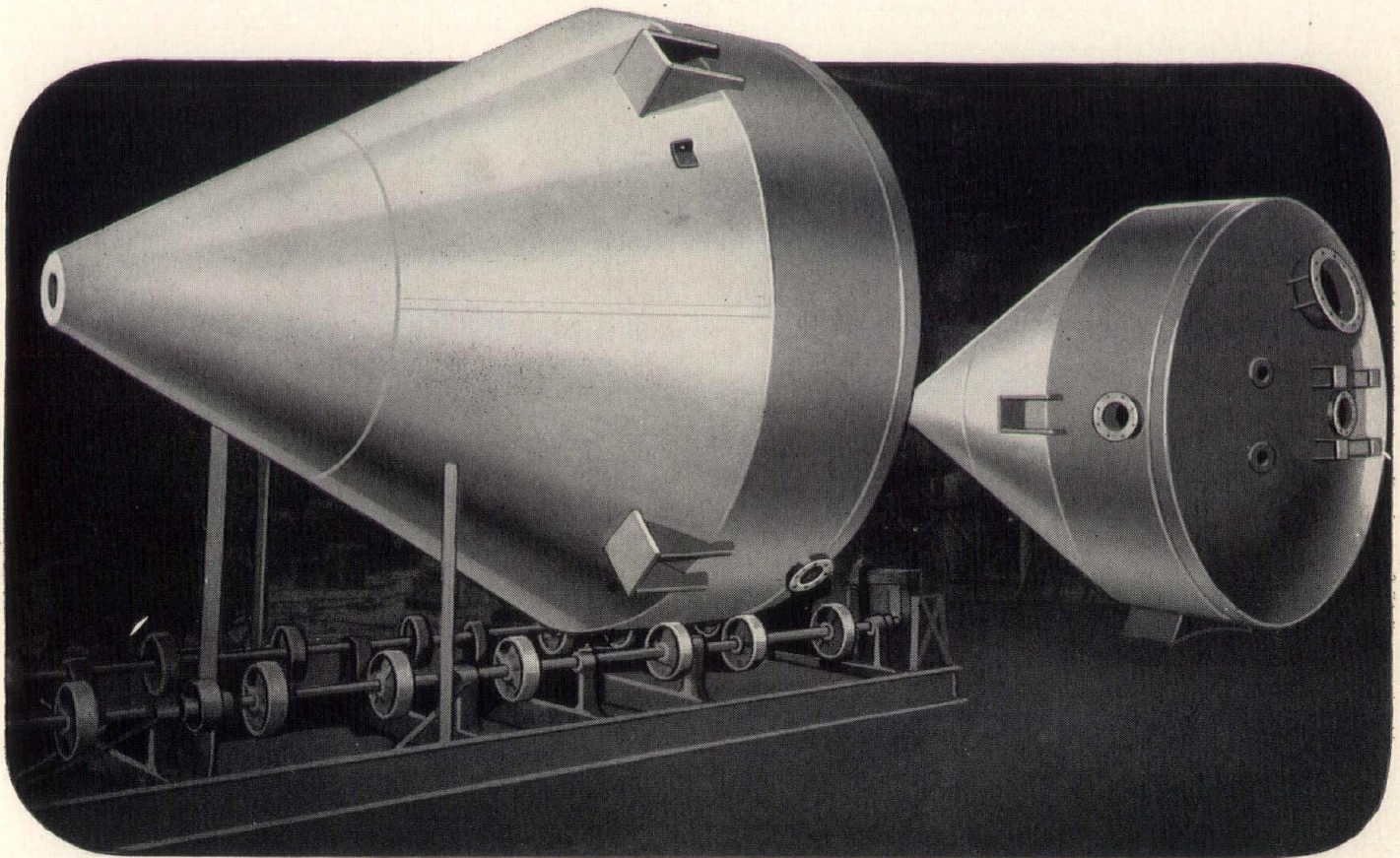
The administrative procedure of a school of photography is quite similar to that of any professional, commercial or even public school.

The reception desk will be located near the main entrance and will act as a control point between the public and administrative areas and the work areas of the school. The receptionist will be in direct contact with the director, staff and the administrative staff through a switchboard or inter-communication system. The receptionist, besides answering the questions of the public and prospective students, will be in charge of a shelf of books, periodicals and pamphlets pertaining to photography, which will be on sale to the public.

The director of the school will have a private office with a conference room adjacent. . . . The work areas of the school as well as the public space will be easily accessible to him and yet so located that access to his office will be under control at all times. The office space for the staff will be generally related to the director's office.

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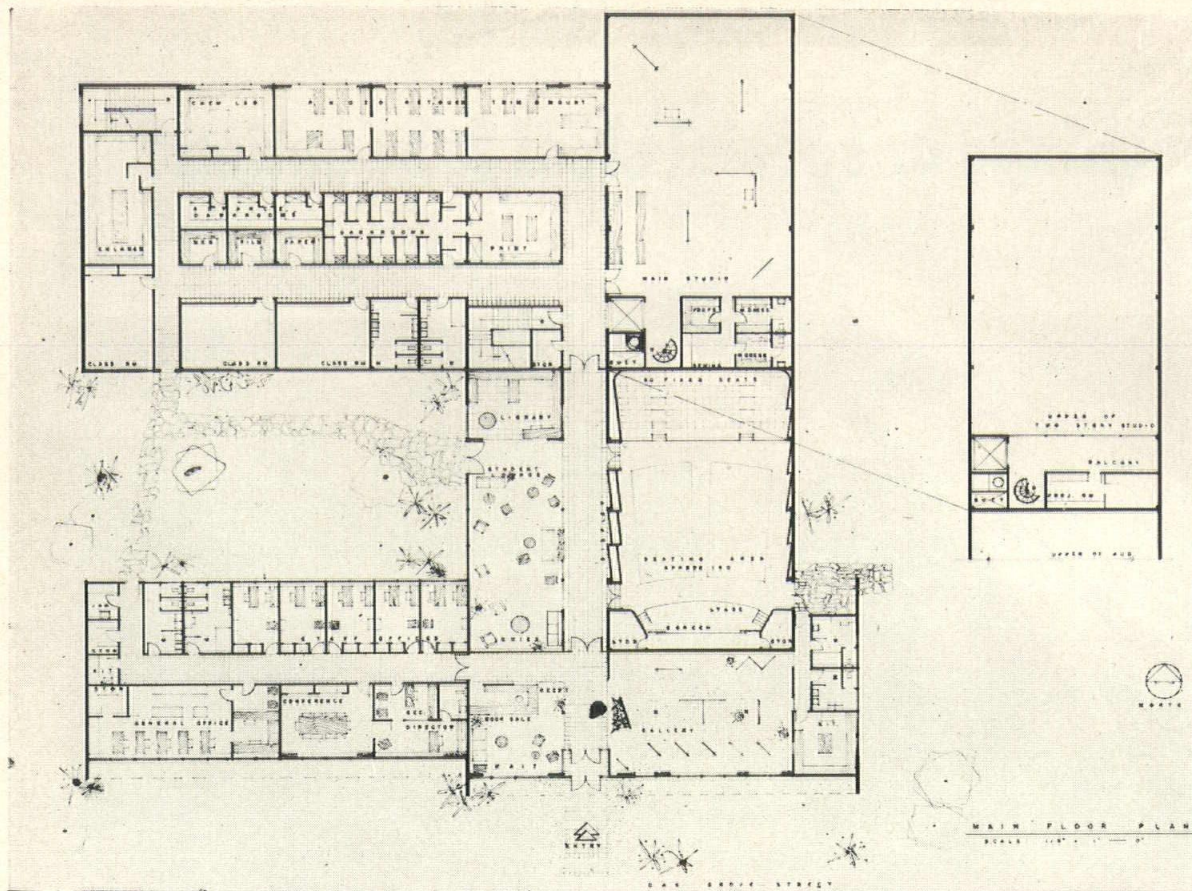
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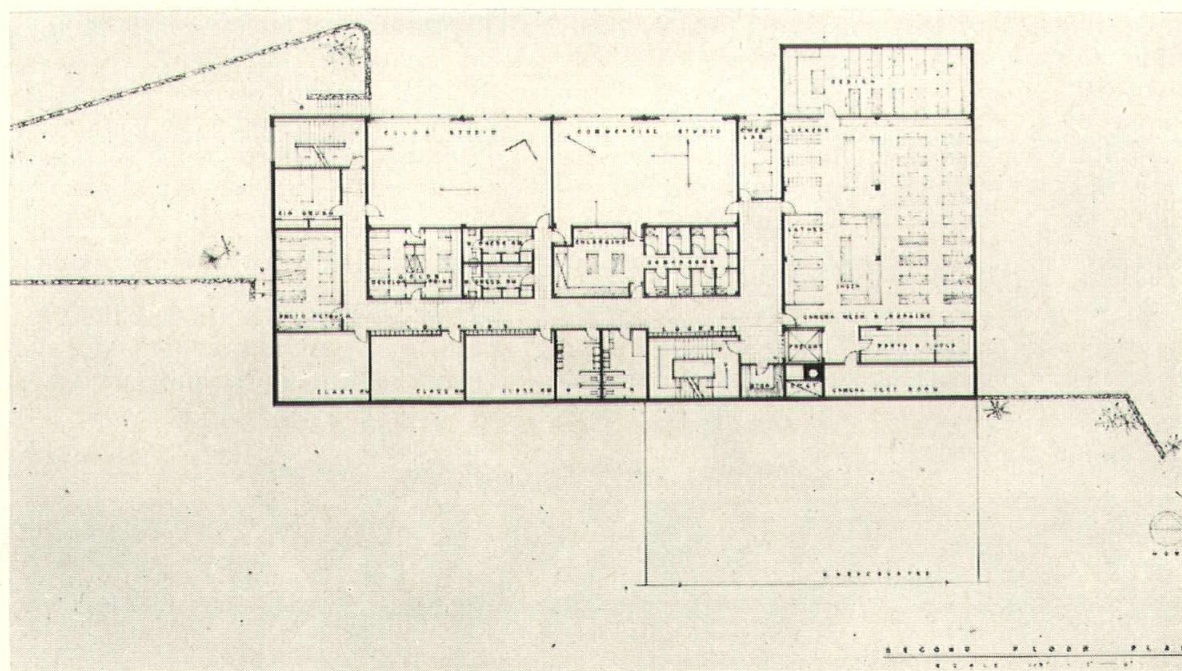
and housing services for the benefit of students will be handled in the general office. The mailing room to handle the nationwide promotion carried on by the school will require wrapping and storage space but can be located in the immediate vicinity of the general office or can be located in the vicinity of the shipping-receiving area—this will be determined at a later date.

The staff and administrative personnel will be provided with a small lounge and toilets. Thought has been given to the provision of a small cafeteria for the staff,

administrative personnel and the students but there is some doubt as to whether that would be economically sound or not. However, a snack bar serving sandwiches and coffee will be provided and there will be a kitchen adjacent to the theater that will serve group meetings, public functions, et cetera.

The public space is a very important factor in that it will be the selling point for the school. The public space will consist of a combination lounge and gallery for the display of student work and traveling exhibi-

Plan
for
the
Second
Floor



NORTHWEST

tions. The space need not be too large in that the display area need not be fixed. In fact, a combination of fixed and movable displays will allow for a more effective and dynamic presentation of the prints. Also, the corridors, walls and partitions can be fully utilized for more permanent displays.

In carrying out the investigation of the requirements of a school of photography, there was great difficulty in finding or uncovering material that directly related to such a school. This may be a blessing in disguise for it eliminated any preconceived ideas in approaching the problem. As far as can be established, all the major schools of photography around the country have been established in existing buildings, with the result that facilities and requirements were arranged in the best possible manner in face of the limitations set up by existing conditions. . . . The information and conclusions arrived at in this report are largely based on existing conditions and special conditions met by professional and amateur photographers, artists and art schools in laying out their studios, darkrooms, laboratories, et cetera. In many instances, conditions were quite different from those which would exist in a school of photography but every effort was made to evaluate and apply the basic principles involved to the layout and requirements of such a school.

There are no special requirements for the classrooms other than good lighting, heating and ventilation. Classrooms can be either naturally and/or artificially lighted. Tack space will be provided for the display

of photographs, charts, graphs, et cetera. Whenever possible, the classes will be kept as small as practicable. Because of the variety of the phases of photography being taught, class schedules will be arranged in such a manner that classrooms will be utilized in a rotating system. This will allow for a minimum number of classrooms. . . . Often the studio and laboratories will better serve as classrooms where lectures can be carried out simultaneously with demonstrations. Therefore, studios and laboratories will be used as classrooms whenever possible, as long as it does not disrupt or interfere with any private projects or individual instructions. Where there is conflict, classrooms will be used.

Six Classrooms Aid Flexibility

Six classrooms will be provided, one for each of the major divisions of the curriculum with the other two allotted to the commercial photography division, although any one may be used when necessity arises. The rooms will be kept as flexible as possible by the use of movable storage walls, cabinet work, desks, tables, et cetera. Fluorescent lighting will be used throughout.

The studios will be one of the most important areas within the school. Space will be provided for one very large studio to accommodate props which may be as big as a prefab house, an airplane, automobile, et cetera. Provisions will be made for easy partitioning or screening of the space into a dozen or more model areas.

(Continued on Page 33)

Wilson DOORS FOR ALL SERVICES

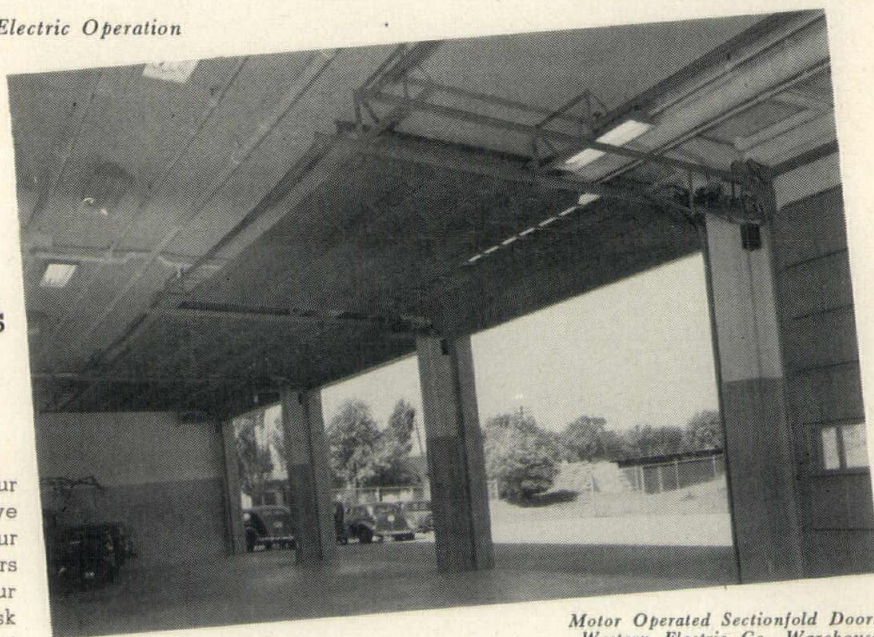
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F.Y.I. (For Your Information)

CARNEY MOVES TO NEW TWIN CITY SALES OFFICES

The Twin City District Sales Office of the Carney Company is now located in new quarters at 752 Builders Exchange, Minneapolis. It was formerly in the New York Life Building.

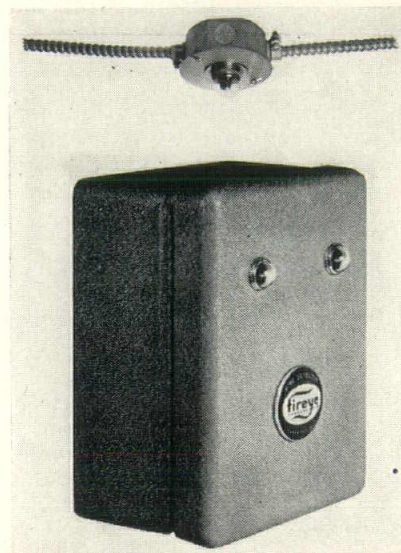
"We feel that our new quarters will be more convenient to our customers and that we are now located to render even better service," Harry C. Carney, president, said. Mr. Homer Carlson is in general charge of Twin City sales. Working with him in this area are Roy Christen-

sen, Bill King, Jr., and Harry Olson.

ELECTRIC EYE PUT TO WORK DETECTING FIRES

Using the basic principle of the electric eye, a new fire detector has been put on the market by the Fireye Corporation under the trade name of Fireye.

Its makers report the eye is de-



Shown above are the two units making up the "eye" of protection.

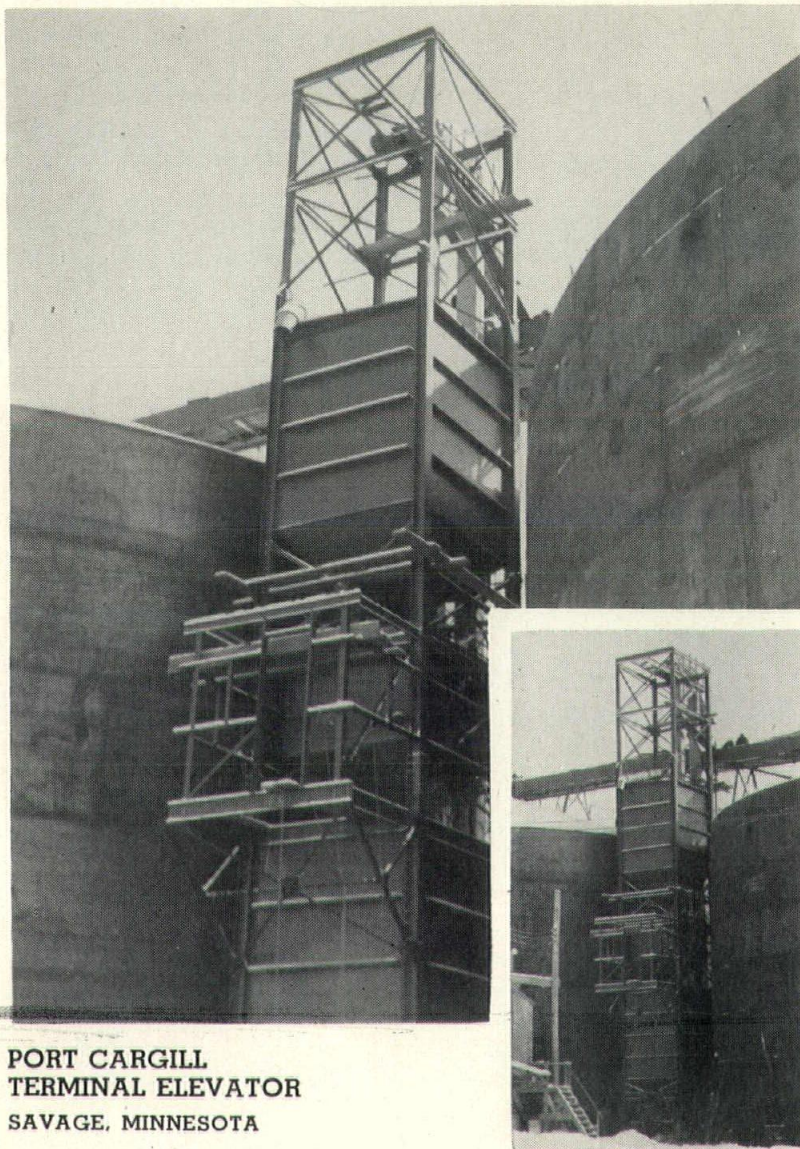
signed to give instantaneous alarm if fire breaks out in the room or fire zone for which set but will not be "tripped" by artificial or sunlight. It is usable in industrial areas, home, air conditioning duct systems and the like. Complete specifications and details can be obtained from the corporation at 77 Broadway, Cambridge 42, Mass., and the material is in Bulletin C-501.

BUREAU STANDARD ISSUES WET VENTING PAMPHLET

A discussion of the use of wet venting in plumbing installations to reduce the number of vents required and so save on building costs has been published by the National Bureau of Standards.

The 27-page booklet can be obtained for 20 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C. It is of value to

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architects and officials concerned with codes and covers the subject in detail.

ROOF DATA GIVES BACK- GROUND FOR INSTAL- LATION, REPAIR

Of value to both the original designer and the architect who must alter existing roof structures, a new book on "Solving Roof Problems" is being distributed through local representatives by The Tremco Manufacturing Co., 8701 Kinsman Road, Cleveland, Ohio.

The book contains a multitude of excellent details, well illustrated by numerous photographs, so the many problems covered are readily understood. Among the features of special value are the discussions on roof bases, paper felts, built up roofs, how damage occurs and why, related difficulties as an aftermath of roof failure, how to "diagnose," planning repairs and after-treatments.

If there is no local representative of the company, the book can be obtained by writing directly to Cleveland headquarters.

SLIDING DOOR BECOMING EVER MORE POPULAR

Because every square foot of house today must give use to occupants, popularity of the sliding door is growing, according to a survey just announced by Ponderosa Pine Woodwork.

The association said 68 per cent of those planning to build or remodel are including sliding doors in their specifications with majorities mentioning specifically their use in closets and linen closets. Also popular is use of sliders between dining rooms and kitchens.

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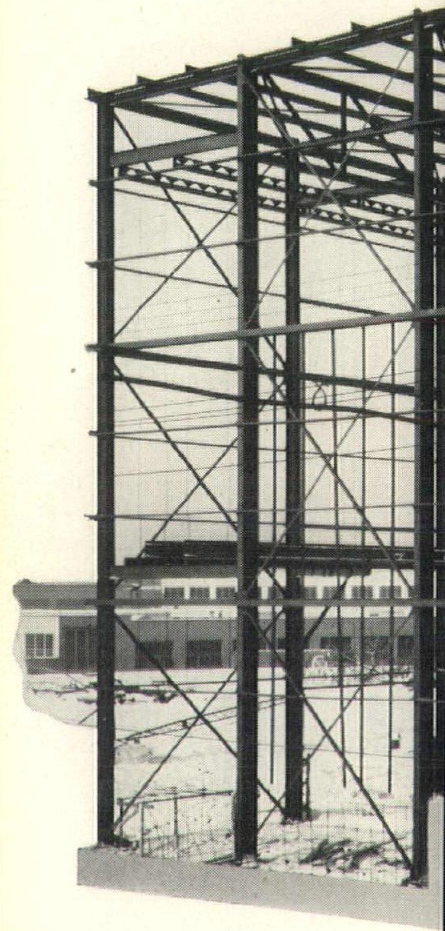
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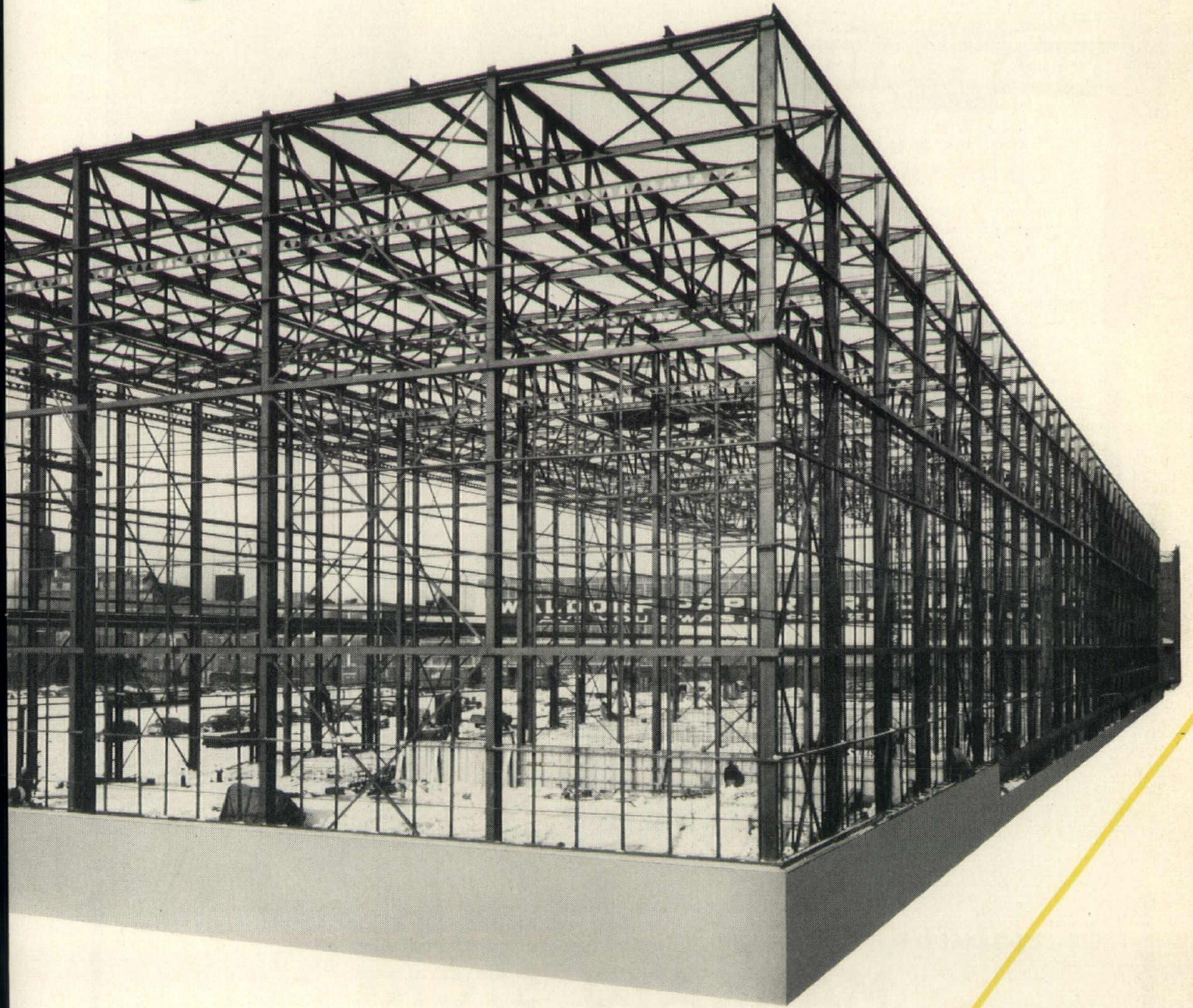


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E. W. HANSON, STILL- WATER ARCHITECT WINS PLYWOOD AWARD

A design for a shelf-door wardrobe which can be easily constructed to add space to home storage facilities



Mr. Hanson (rt.) designed the closet above to increase storage space in a necessarily small space.



cilities without eating up cubic feet won Edward W. Hanson, Stillwater, Minn., architect, the first prize of \$2,500 offered for design by the Douglas Fir Plywood Association.

Mr. Hanson's design allows for added accessory storage in the thick door of the closet, releasing more space inside the unit for clothes storage. It was selected from among 2,727 entries. Key to the design is addition of four inches to plan of the closet to allow for the shelves in the door. In addition to extra space for shoes, purses and

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the like, the shelves allow for putting keys, change, billfolds, etc., from a man's pockets when he puts his clothes away for the night.

MORSE'S ONE-COAT HARDENS CONCRETE FOR SAFETY, WEAR

A hardener for concrete floors which etches and binds particles with a one coat application, providing a safe, high traction surface, is Morse's One-Coat, manufactured by the F. J. Morse Co., Inc., 509 Minnesota St., St. Paul 2, Minn.

"One-Coat, which is easily applied to all floors, new or old, provides a more safe, non-slip and much harder floor than just plain concrete," E. H. Englund, Morse president, pointed out. "Morse's One-Coat is a dressing that etches, cleans and closes the cement floor surface to produce a safe floor with a high friction coefficient."

The coating is a good undercoat for application of floor coverings, paint and tile adhesives, providing sufficient tooth to assure a secure grip. It prevents concrete floors from absorbing moisture, prevents concrete dusting, prevents slipping and makes for easier cleaning. It is useful in industrial plants, warehouses, dairies and creameries, farm buildings, public buildings, garages, oil stations, laundries and many other locations.

The product resists penetration of oils and acids, holds down slipperiness of soapy materials. It seals by fusion, its makers report, and "virtually welds the concrete particles together to form a surface like sheet metal." A gallon of the material surfaces 100 square feet and it is flowed on the floor and allowed to stand until maximum absorption is achieved. Then the excess is squeezed off and the floor damp mopped.

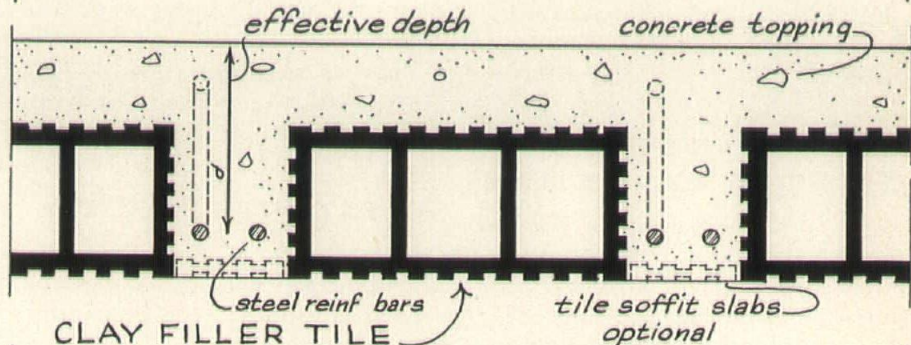
CEILING TREATMENT DISCUSSED IN NEW BOOKLET

A new booklet which discusses many aspects of ceiling design and and installation, together with the proper handling of Anemostat Draftless Aspirating Air Diffusers, has been published by the Anemo-

ARCHITECT

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CLAY TILE



Typical One-Way Floor Section

one and two-way tile FILLER FLOORS

One or two-way combination tile and concrete floor or roof construction is essentially a flat slab in which a large percentage of solid concrete has been replaced by structural clay tile. Many advantages are immediately apparent. Less concrete is used. Dead weight is reduced.

Using tile soffits provides excellent plaster base. For a given set of conditions the combination slab will be from 2 to 4 inches less in overall thickness than the ribbed slab. In multi-story construction this difference is accumulative and a sizable savings can be effected in both wall and supporting frame costs. The concrete topping, normally 1½ to 3 inches thick is poured monolithically with joists forming a series of reinforced T sections. The ability of the tile units to take stress normal to the joists eliminates supplementary bridging. Structural Clay Tile units for one and two-way floors are manufactured in depths of 4 to 12 inches and 12 inch lengths. Tile soffits and closures are also available.

For further information consult your *Tile Engineering Handbook*, Chapter 10 and 11, or write to

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stat Corporation of America, 10 E. 39th St., New York 16.

"Ceiling Architecture" is a spiral bound, well designed booklet which gives the architect a quick insight into the basic facts of air diffusion, discusses acoustics, lighting and color and gives typically modern designs for offices, schools, theaters, churches, stores, etc.

Final sections of the book are devoted to types and installation of anemostats.

PERSPECTIVE BROCHURE USES DRAWINGS FOR TEXT

Eliminating much of the text in favor of drawings which quickly and clearly show the architect and student exactly how to approach many problems in perspective, a new brochure on the subject "Fundamentals of Perspective," by Theodore De. Postels, has been issued by Reinhold Publishing Corporation, 330 W. 42nd St., New York.

The basis of the brochure is a

logical sequence of how the lines of perspective are drawn and the 30 sheets of the publication start with the observation of the object through the transparent plane, swing through the difference between parallel and angular perspective, construction of birdseye perspective and many other intriguing considerations to the more advanced features of the problem.

Price of the publication is \$5.00. This publication is the second, enlarged edition.

AT BAY WITH FENESTRA

In step with the desire today of having a room with a view through a picture window or a bay is the use of Fenestra steel casement windows, as shown here, to fit into such designs.

The bay shown is of multiple pane casements, can be varied by using a single central pane without mullions. Fenestras as made by the Detroit Steel Products Co., and idea



pamphlets on this and other uses for their products can be had by writing to 3197 Griffin St., Detroit 11, Mich.

CALIFORNIA EXPORTS TWO ARCHITECTURAL INSPIRATIONS

Although the Northwest climate is not conducive to the wide open planning of buildings which exists in less violent parts of the country, our architects can still find much inspiration in what is done by their confreres elsewhere and many things they find applicable can be adapted to Northwest design.

Two recent publications exported by California designers are worth at least a cursory survey and probably a place on most architects' shelves. "A Guide to Contemporary Architecture in Southern California" is published by Watling & Co., 406 Wilshire Blvd., Santa Monica, at \$1.95, while "How to Plan and Build Your Fireplace" is a Sunset Book from the presses of the Lane Publishing Co., 576 Sacramento St.,



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San Francisco, and sells for \$1.50.

The guide is well illustrated by photographs and plans and is especially valuable to the architect visiting in California for it lists all the outstanding recent buildings he might want to see and study.

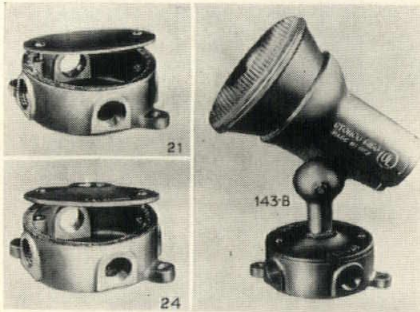
The fireplace brochure has more direct value to the Northwest, contains 245 photographs and numerous drawings and sketches of details. It swings from the intimate small home fireplace in many moods and varieties to the huge mansion type structure which seems capable of burning a cord of wood at a time.

Both publications can be had directly from the publishers.

WEATHERPROOF JUNCTION BOXES PROVE EASILY ADAPTABLE

A new, heavy duty junction box of aluminum with a variety of fittings to adapt it to many outdoor uses has been announced by the Stone Manufacturing Co., Elizabeth 4, N. J.

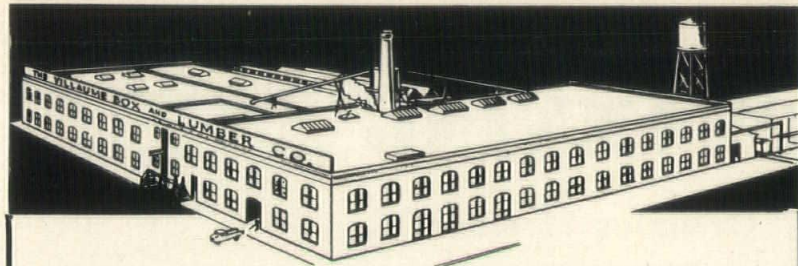
The box has four hubs tapped $\frac{1}{2}$ -inch IPS, can be had with or



The three pictures above show details of the Stone junction box.

without mounting lugs and its several covers make it usable with many types of lights. It can be mounted to light property lines, floodlight work areas, illuminate yards, etc., and helps assure against pilfering, sabotage and similar encroachments. All units are fully UL approved, company official reported.

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A.I.A. CONVENTION

The present world emergency's direct and indirect effects on architecture, with a thoroughgoing investigation of all the aspects of the problem by authoritative speakers and discussion panels, was the center of the program for the 83rd annual convention of the American Institute of Architects in Chicago, May 8 through 11.

Under the presidency of Ralph Walker of New York, planners for the convention had rounded out an excellent perusal of the best and latest thinking on "Designing for Permanence in Times of Crisis," which was the convention's theme. Major emphasis was on building industry controls, urban decentralization and dispersal and the architectural aspects of civil defense.

Among the speakers on the program was Harlan McClure of the University of Minnesota, who presented an illustrated talk on "Contemporary Teaching Methods in Architectural Design." The address was given at the 10:00 a.m. session on Wednesday, May 9, in the ballroom of the Edgewater Beach Hotel, which was convention headquarters. Complete programs were



**A.I.A.
Vice President
Stanton**

sent members by Edmund R. Purves, executive director of the A. I. A., in advance of the meetings.

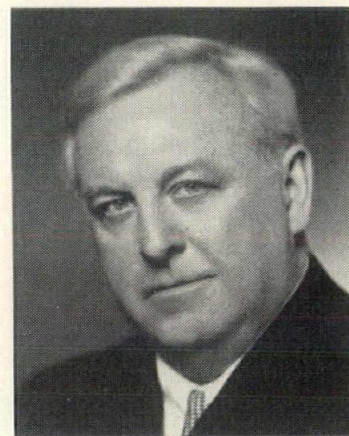
The meeting of the 95-year-old professional group saw 39 of its outstanding members honored as Fellows of the Institute in a traditional ceremony dur-

ing the annual banquet. At this time the Gold Medal of the Institute, its highest honor, was awarded to Bernard R. Maybeck, 89-year-old architect of California, who was represented on this occasion by his son.

Other honors conferred by the organization were the Fine Arts Medal, awarded to Thomas Church, landscape architect, San Francisco; the Edward C. Kemper Award, to Marshall Shaffer, chief architect of the U. S. Public Health Service; and a special Citation for Craftsmanship to the Corning Glass Works for its Steuben glass.

Exhibits at the convention were led by the honor awards for distinguished architectural work in the fields of industrial buildings, hospitals and residences. Winners in the annual competition for the best literature in the building products field also were shown. Fifty selected commercial exhibits had been chosen from many times that number of applicants to give the architects a concise, informative review of current developments in this field.

Against the background of the present national emergency, convention sessions treated issues faced



**A.I.A.
President
Walker**

by the profession growing out of the regulation of the building industry. The limitation of building types by the National Production Authority, the national effort to conserve steel, copper and other building materials in short supply and the control of mortgage credit by the Federal Reserve Board were reviewed by national authorities in these fields and discussed by representative panels of outstanding architects.

Architects have criticized present controls as offering no positive incentive or reward for conserving scarce building materials. They also say that building credit controls are a pernicious substitute for more direct materials controls and have failed as a means of preventing inflation.

The special problems of civil defense received authoritative consideration and some gaps left by the proposals of national and local defense agencies will be filled by recommendations of the Institute. Architects have been critical of plans made in some large cities for dual-purpose shelters. They have also objected that most plans advanced for large group shelters in cities are impractical because the city populations they are

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Its Annual Convention
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the latest information vital to pursuit of
your profession. If you can't—watch
for Northwest Architects story and pic-
tures of the event. We'll be there!

designed to protect cannot reach them, because entrances and exits are inadequate or for other practical reasons. Institute committees believe that the best shelter for downtown populations and industrial employes will be created by reinforcing specially designated areas in existing structures. Such shelters will be immediately accessible to workers, more economical to build and require less building material. They also lend themselves better to post-emergency uses, it is claimed.

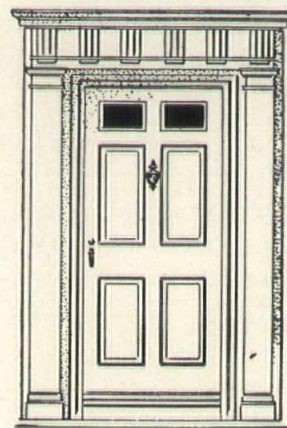
Another session of the convention further surveyed the possibilities of decentralization and dispersal as a means of providing "the safety of space" to threatened city families. Specific federal programs in this field involve the dispersal of 40,000 federal employes to new satellite office buildings twenty miles from downtown Washington. Another proposal would send 25,000 more from the capital to decentralized locations in other parts of the nation.

Architects have pointed out that these developments, coupled with other decentralizing trends affecting population and industrial locations, offer major opportunities to shape new communities which offer greater security as well as better living. They have also criticized the inconsistency with which federal housing and other agencies have failed to employ their powers to aid defense objectives.

Continuing this year the series of seminars on "Fundamentals of Design" the architects listened to outstanding designers, scientists and industry representatives on recent developments in acoustics and modular co-ordination. Due to the unprecedentedly large attendance anticipated at this year's convention, these sessions were held concurrently with the national defense sessions.

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LONG & THORSHOV BECOMES THORSHOV & CERNY

Reflecting more clearly the present complexion of the organization, the name of the well known architectural firm of Long & Thorshov, Inc., Minneapolis, has been changed to Thorshov & Cerny, Inc.

Senior member Roy N. Thorshov, president of the Minneapolis Chapter, American Institute of Architects, has been active both in the practice of architecture and in the advancement of the best interests of the profession through associations for a long time. He has headed up many committees in city and state associations to handle conventions, special meetings and other activities aimed at furthering the best interests of the profession.

Robert Cerny is representative of the younger archi-

tecs whose ability in design is coupled with a keen interest in and understanding of the broader aspects of the profession—the economic backgrounds, influence of industry and business and so on. He is well known as a speaker, is a member of the architectural staff of the University of Minnesota and is also active in association work.

The firm has a long and fine history in this area. It operated under several names before becoming the now superseded Long & Thorshov, each change reflecting changes in makeup of senior membership—at one time Long, Lameraux & Long and later Long & Long. With the present change the well known name of Long drops from the title of the company.

TUSLER MADE MEMBER OF ARCHITECT-CONTRACTOR COMMITTEE

W. H. Tusler of Minneapolis has succeeded Philip C. Bettenberg of St. Paul as a member of the National



Mr. Tusler

joint committee of the A. I. A. and Associated General Contractors of America.

The group is concerned with contracts between owners and contractors on building projects. Mr. Tusler, a member of the firm of Magney, Tusler & Setter, architects and engineers, served on a similar committee in the state before being named to the national post. Mr. Bettenberg has been called to active military duty.

INSULATION ENGINEERS NAME SCHIRMER SALES HEAD

Ernest F. Schirmer has been appointed sales engineer for Insulation Engineers, Inc., of Minneapolis. He joins Peter Liljegren, who has been with the firm for the past several months and who is also in a sales capacity.

The company, headed by Marvin L. Fergstad, a registered architect and engineer, as president, now has a new service for contractors in the Twin Cities metropolitan area in which labor and material required for thermal insulation is supplied to homes, commercial, industrial and school buildings. Trucks equipped with a power apparatus are used for blowing Palco Wool Insulation (shredded redwork bark) into open attics and flat roofs in newly erected structures.

In addition to engineering services, the firm also

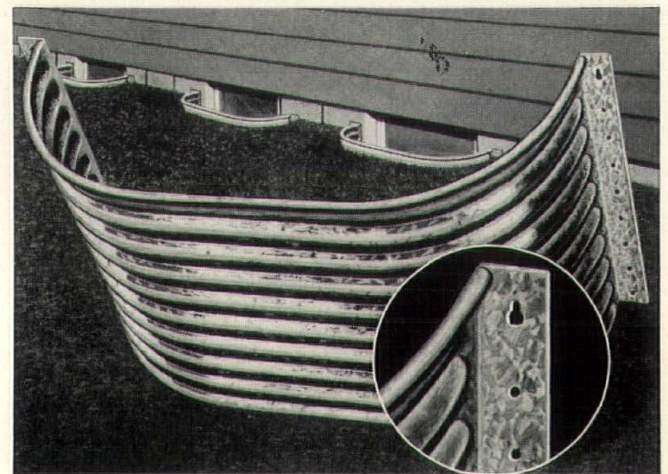
distributes Reynolds Metallation (reflective insulation) and U. S. Mineral Wool Batts and Blankets.

LUX-RIGHT AREAWALL NOW "HUGS" BASEMENT WALL

A new development in the well known Lux-Right Areawall in which a flange at each end "hugs" the unit to the basement wall for greater strength and security has been announced by the St. Paul Corrugating Co.

This new feature of the product originally introduced to the industry by the St. Paul company in 1938 will be standard on all areawalls now coming from the plant. The flange serves further to prevent sifting of soil into the areaway and is attached to the basement wall with hardened masonry nails, which are supplied with the units.

Lux-Right is the only areawall which is hot-dip galvanized after forming, according to St. Paul Corrugating's President Robert Adler. This assures users



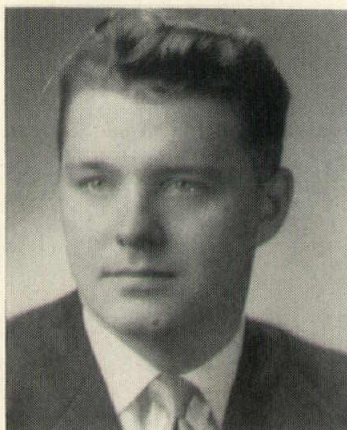
Details of the Lux-Right unit and the manner in which it hugs the foundation are shown clearly in the illustration above

that every edge and surface is completely protected by the molten zinc. Two types are made, the Streamlined Straight where a minimum projection is desired and the Round where more area is desired. Both types come in a variety of sizes to fit any standard window opening.

Details on the areawalls can be obtained from the company at St. Paul 1, Minn.

**JOHNSTON MANUFACTURING NAMES
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Lloyd M. Moen has joined the Johnston Mfg. Co., Minneapolis, as sales representative in the Johnston



Mr. Moen

Perlite Lightweight Aggregate Division, an announcement from the company reported. Mr. Moen previously represented National Gypsum Co., in the Upper Midwest.

THOUGHT FOR ARCHITECTS

"It is much easier to design an object, such as a piece of architecture, let us say, along lines already established and to which a philosophy of design may or may not already have been fitted than to reach out into the void and at one and the same time create a design and the philosophy in which it shall be enveloped. The former is the easier but it leads nowhere and in the end accomplishes little; little more than momentary satisfaction to the designer; nothing but bulk has been added to the sum of human achievement. The latter is not so easy; but one who desires really to achieve does not necessarily choose the easier path. That a life work may be consistent, however varied the details of its manifestation, it is necessary that a sound philosophical basis underly it. Life is not static; it is movement and the movement we like to believe is progressive."

Irving K. Pond, writing many years ago in "Pencil Points" a thought which is ever fresh and valuable.

RADIANT HEATING GOES INTO CEILING

A radiant heating system which is combined into the ceiling with acoustical blanketing has been announced by Burgess-Manning Company, which said the installation can also be used as an air conditioning unit in hot weather.

The B-M ceiling is made up of aluminum panels which snap into channels and through which hot water circulates. Over the coils an insulating acoustical blanket fits, which absorbs a large amount of extraneous noise. Materials for the installations are prefabricated and need no alteration. By circulating cold water through the system, it acts as a summer air conditioner.

Further details and costs can be obtained from the company in Libertyville, Ill.

ARCHITECT

***Lux-Right**

NOW WITH HUG-TITE Flange

One-piece unit fits tight against vertical foundation wall. Retards sifting of fill into well.



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THEY SAID IT Will you do it?

Polio

Do You Have Children?

IN THE AUGUST 1950 NUMBER of this journal, on page 12, we gave you a brief report on Polio which we had planned to print early last spring. The focus was a two-line diet memorandum which is believed to have been the principal factor in reducing Polio in North Carolina from two thousand cases to two hundred in a single year. Many have told me they thought that this general statement described a diet for children impossible to maintain. I am now able to give you the complete diet. This is a development from many years of study by Dr. Benjamin P. Sandler, M.D., medical director of Veterans' Hospital at Oteen, North Carolina.

Dr. Sandler's List

Based on fifteen years controlled experimentation

MAKE SELECTIONS from food list below. Take special note of foods to be avoided.

❖ DO NOT EAT ❖

AVOID COMPLETELY

sugar	tapioca	prunes
potatoes	macaroni	raisins
corn	pancakes	canned fruit juices
rice	noodles	cereals
barley	spaghetti	bread
lentils	cake	rolls
hominy	candy	toast
split peas	pastries	ice cream
bananas	malted milks	"mixes" for mak- ings

❖ EAT ALL YOU WANT ❖

FOODS ALLOWED IN UNLIMITED QUANTITIES:

all dairy products	all meats,	no rice stews,
milk	fish, and	nuts, most kinds,
buttermilk	poultry, But . . .	but no peanuts;
cream	no breaded cutlets;	no cashews,
cheeses	no breaded chops;	no chestnuts, last
eggs	no flour gravies;	3 have too much
butter	no potato stews,	starch, too heavy
		fats.

Try to have your meals on time. Take some milk, or tomato juice, or cheese between meals or at bedtime. No nuts, no cookies and Avoid "soft" drinks, or sweetened fruit juice.

VEGETABLES ALLOWED:

asparagus	tomatoes	green pepper
string beans	lettuce	radishes
wax beans	olives	pumpkin
Brussel sprouts	fresh peas	carrots
cabbage	egg plant	onions (cooked)
celery	endive, kale	squash
spinach	water cress	turnips
cauliflower	broccoli	beets

F'RUITS ALLOWED:

oranges	watermelon	strawberries
grapefruit	apples (peeled)	blueberries
lemon	pears (peeled)	blackberries
limes	peaches (peeled)	raspberries
honeysuckle	pineapples	grapes
cantaloupe	fresh plums (peeled)	cherries

Take only one portion of fruit at a meal. Don't eat more than one orange or apple at a time. Apple sauce prepared without sugar is all right; apples may be baked without sugar. Don't use dried fruits.

(Infection and chemicals negation)

❖ SUGGESTED MEALS ❖

BREAKFAST

2 eggs (any style) with or without bacon or ham; or fish if desired
cheese, butter, no toast or cereal
a glass of milk; coffee with milk, no sugar
1 small orange or 1/2 grapefruit, eat last, not juiced.
(Starch to be avoided!)

LUNCH

Tomato juice or clear broth
meat, fish, poultry
cooked vegetables
salad, fruit, milk.

ALTERNATE LUNCH

Tomato juice, fruit, broth
combination salad, egg, sardine, salmon, cold cuts, etc.)
cheese, milk, coffee with milk—no sugar.

DINNER

soup (clear broth, or vegetable soup cooked with permitted vegetables)
entree (fruit, oysters, tomato juice, etc.)

meat, fish, poultry,
vegetables, salad, butter.—fruit, cheese, nuts.
milk, coffee—cut down as much as possible—take coffee with milk, no sugar.

NOTE—Don't sleep late and miss breakfast. If necessary, get up and eat and return to bed. Have something between meals at 10 a.m., 4 p.m. Tobacco—cut down as much as possible. Don't smoke before or during meals.

Polio Prevention Rules

From "PREVENTION" Magazine

You should have seen the entire contents of the June, 1950 number of PREVENTION Magazine which was a reprint of that first issue for which I urged you to subscribe at half the cost of one visit by the doctor. I will, however, give you the general protection rules.

WE WILL LIST the positive items in the prevention of polio, as far as we have been able to gather data. Keep the following before you, during the polio season especially:

1. Keep away from sterile and overprocessed foods. Eat as much natural food as possible, such as milk, molasses, eggs, fresh fruits (peel the skins), vegetables, etc., study list above.
2. Cultivate your own vegetable garden, if possible.
3. Keep away from foods that are poison-sprayed. Since this is not entirely possible, cut off skins wash and scrub thoroughly.
4. Discourage the use of chemical fertilizers and poison sprays. Take this up with your congressman and other officials.
5. Take some bone meal every day.
6. As far as sea food is concerned eat only those sea animals that have fins. Avoid clams, oysters, lobsters, etc.
7. Eliminate as much as possible of carbohydrates (i.e., sugars and starches). Cut out industrial sugar entirely. Eat fruit for sugar. Eliminate especially ice cream, candies, soda, pastries, cookies, etc.
8. Take vitamins that are made from natural sources, including brewer's yeast for vitamin B.
9. Do not use cyanide-containing silver polishes. (Remains on silver, is an accumulating poison.)
10. Do not permit children to overdo sunshine during the polio season. An overdose of sunshine causes calcium withdrawal from nerve tissues.
11. Consider carefully before permitting any child or adult to be inoculated. Is it an extreme emergency?
12. Do not have tonsils taken out, too close to the approach of the polio season.

This may not only prevent polio but will also create a big improvement in one's general health. To those who are somewhat skeptical I say: "What do you have to lose in following these instructions?" They are excellent general health measures anyhow. For example, if you take the bone meal you will be delightfully surprised over its effect on your teeth, if you have trouble with them. Of course, this diet means denying yourself certain food luxuries, eating ice cream and candy for example, but you will find that a habit once formed becomes second-nature and you won't miss these things. The whole situation now is in your hands.

Benjamin P. Sandler, M.D.

PREVENTION Magazine, \$3.00 Emmaus, Pennsylvania

❖ THINK IT OVER ❖

Notes on the above by Technical Editor NORTHWEST ARCHITECT:

Listen to Victor H. Lindlahr's food program on radio any morning.

Discount, more or less, the supportive patent medicine pitch according to credulity. His specialties may have value in certain cases, consult your nutritionist, or M.D. if ill.

Avoid all packaged food — in cans, cartons, bottles — many are all right but *you have to know which*. Manufacturers' labels and advertising are often incomplete and/or misleading. Much food advertising is subtly planned to mislead by a strongly pressed "association of idea" which may be contrary to fact. Pictures are used to cover up small-type facts; recipes are printed which may not be used in product; words are separated at line ends, to cleverly cut in two some legally required but too revealing concept; attention is distracted from inferior substitutes in product, with irrelevant stories and scenario. No end to this new day "thumb-on-the-scales."

❖ THEN ACT ❖

Do not drink orange juice on an empty stomach. Citric acid is too strong. Avoid processed orange juice (most contain added commercial sugars, dextrose (the new pleasant word for glucose!) and synthetic vitamins. Eat oranges for dessert instead — use no sugar — sweeten with honey. . Avoid carbonated beverages — avoid soft drinks — avoid ice cream.

Bone meal is powdered, tasteless, introduce it into other foods.

Despite constantly repeated advertising claims, and the propaganda shift from the name "glucose" (in discredit for eighty years as an adulterant) to "dextrose" $C_6H_{12}O_6$, this substitute chemical is a threat to good health as it reduces the normal sugar content of the blood. So does commercial white sugar for that matter.

Dextrose is widely used in canned fruit, synthetic "maple" syrups, etc., to increase bulk and body at low cost.

❖ PRACTICAL NOTES ❖

Lindlar says "wash off syrup from canned goods before eating. This syrup can be used (but not in Polio season) in *nominal quantities* as substitute for commercial sugars in home recipes where some sweetening seems unavoidable.

"Sun bathing" and sun-lamp exposures even by adults should be taken with great caution, with short exposures, very slow increase. Of this "dark tan-all-over cult," says a well-known Southern California

ARCHITECT

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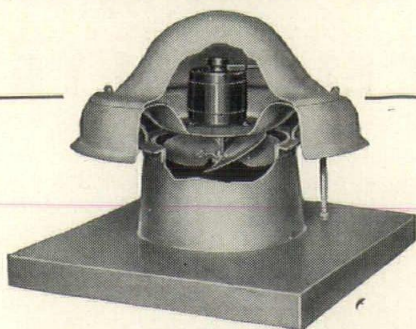


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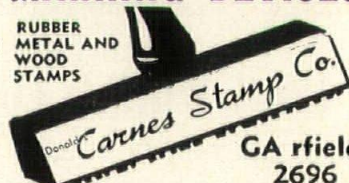
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M.D., "I have known no benefits from sun tanning and have seen many tragedies, e.g., skin cancer, t.b. flare-ups, calcium starvation.

"The exception is sunlight treatment under doctor's direction which may be indicated for *open lesions* of t.b. of flesh and bones but *NEVER* for t.b. of lungs — that is just suicide."

Tonsil removal: One of Minneapolis's outstanding surgeons said to me in response to my concerned inquiry: "Tonsil operations! Mostly the Surgeon's meal-ticket. Occasionally an emergency demands it; but what *caused* the condition?! Don't destroy the alarm signal. Find the firebug."

You have known many children who have had their tonsils removed. Do you know *any* parents or medical doctor who have followed up with a revised health program to get at what was, *and still is*, really wrong with the child?

NOTE FOR SPECIALISTS:

The above report is taken from what are believed to be reliable sources by responsible authorities. It is a digest of public material, available to anyone who will take the trouble to send for the information, much of it free. A complete list was published in the "Food Number" of NORTHWEST ARCHITECT, Vol. XIII, No. 2, page 15.

The Editors of NORTHWEST ARCHITECT are not medical authorities nor nutritionists and offer this solely as a citizen's contribution to the nation's health crisis. They are eager to get the true facts, will welcome any corrections or suggestions before the difficult months are upon us.—W.G.P.

IOWA, MINNESOTA MEN NAMED PONDEROSA ASSOCIATION OFFICERS

F. E. Bissell, Jr., of Carr, Adams & Collier Co., Dubuque, Iowa, was elected president and J. D. Rowland of the Andersen Corporation, Bayport, Minn., secretary, of the Ponderosa Pine Woodwork Association at its recent meeting.

Other Northwesterners named in the balloting included Leonard G. Carpenter of the McCloud River Lumber Co., Minneapolis, treasurer, and Paul W. Curtis, J. Neils Lumber Co., Minneapolis, George M. Curtis, Curtis Companies, Clinton, Iowa, Arnold Loetscher, Farley & Loetscher Mfg. Co., Dubuque, Iowa, T. L. O'Gara, Weyerhaeuser Sales Co., St. Paul, and R. C. Winton, Winton Lumber Co., Minneapolis, directors.

A CRACKING SHELL

(Continued from Page 6)

the granite is expanding by heat, at the same time the concrete backing is contracting by excessive dryness . . . and vice versa, as the seasons alternate. This reciprocative type of disharmonious dynamic action, within the statics of a tall-building structure, is the result of fallacious design theory. Consequently it is not only destructive of the structural fabric but grows progressively worse with time.

In the rainy cold winter months, when the outer granite facing (statically inorganic with its backing) is *contracting*, under the *temperature* factor of the atmosphere complex, the concrete backing absorbs

humidity from the atmosphere and is expanding, through the operation of the *moisture factor* in the air. Thus the pounds per square inch of tension along granite and concrete *contact* surfaces becomes so great that nothing would keep them from sliding separation, one from the other — "Something must give in."

Note: Moisture, humidity, as a component of air, is a gas, and not simply small particles of water like a fine rain or fog. Therefore like a gas, it penetrates instantly any contiguous location holding a body of air, however small, if of lesser moisture content. That the concrete within the tower is "protected" from the outside air or "weather" has no appreciable effect on the hygroscopic index of the concrete. A hygrometer will accurately register a continuity of changing "relative humidity" except in a sealed off chamber.

It is hard to say how this unnatural problem resulting from *built-in-dynamics* disrupting the normal statistics of building construction, could be rectified by modification. It is our opinion that this cannot be so accomplished. The only answer would seem to be removal of the entire granite surface. Then rebuild with an adequate inter-wall space between concrete and granite, together with ties so designed as to permit both lateral and vertical movement.

However, as the granite shell is at present self-supporting from base to bell platform, another major problem enters into evidence. Since the difference in horizontal expansion of granite against its backing amounts to some 1/2 inch in 30 feet. The difference in vertical expansion as between concrete and granite would be some 5 (five) inches in the distance from base to platform! How this very great movement could be compensated for, is indeed a puzzle. Perhaps by some system of individually supported units of outer wall assigned to each ten feet of tower height. These could perhaps rest on the steel and concrete structure properly strengthened to take the extra load and under provision of suitable expansion joints, at the ten foot intervals.

These horizontal expansion joints would of course plainly show and disclose unpleasantly that an inorganic and fallacious design is there taking place. Here indeed would be a situation of neither engineering nor aesthetic merit.

❖ REPAIRS NOT POSSIBLE ❖

Thus one faces a tour de force. The only adequate solution appears to call for the *complete* reorganization as to tower structure and a complete architectural restatement of the relations of such a tower, both with respect to its self-integrity as engineering and with respect to society as represented by the university.

One could scarcely find in architecture a more typical illustration of total frustration of a project and its objectives in every respect where the initiating thought under which it is conceived lacks all the nobility of simple candor flowing from an honest heart. Had the spiritual objectives of such a university tower been materialized with relation to all the basic engineering and the know-how of crafts, so easily available in 1914 — no such miscegenation of forms in their unending interrelative conflict could have resulted. False pride preceded this enterprise . . . and thus the big educational milepost of our time was marked for inescapable defeat. Here was a situation where the five technical

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arts should have been harmonized by the architect, but in 1914 no such ideal was in evidence in our profession and is still but feebly understood. Architecture revolts when straightjacketed by violators of natural laws.

JOHN A. JAGER, A.I.A.

This winter, during severe storms, pieces of stone, pushed out of the tower wall, have been windblown to considerable distances necessitating fencing off larger areas around the base of the tower directly in the path of maximum flow of campus pedestrian traffic. Nemesis did not omit a single factor of retribution in punishment for the defiance of the good earth's immutable laws.

JACOB STONE is a native of Minneapolis and there attended elementary school. After two years at the old Putnam High School in Newburyport, Massachusetts, he entered the architectural course at M.I.T. in Boston. Upon graduation in 1899, he



Mr. Stone and Friend

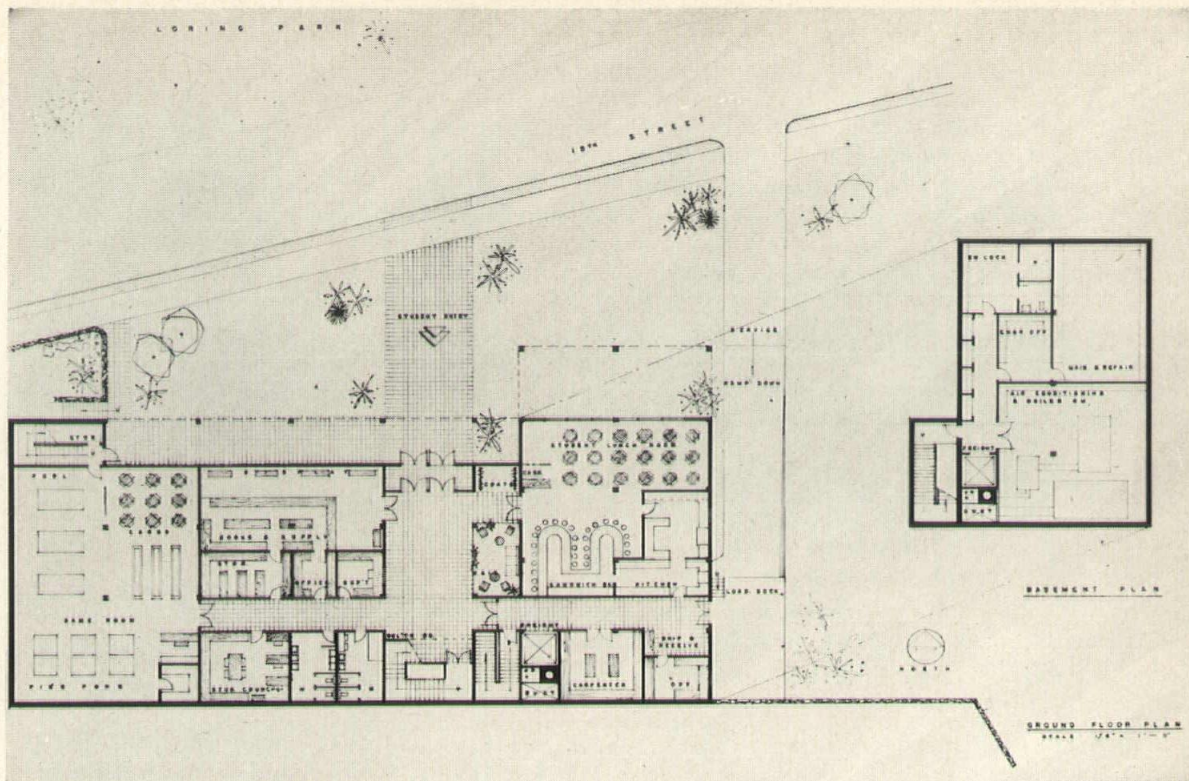
remained in Boston working for Shepley, Rutan and Coolidge before returning to Minneapolis.

He says: "In 1909, with Jerome Paul Jackson, we started the firm of Jackson and Stone. Paul was a classmate of mine at M.I.T., and we had a very pleasant association for many years, designing residences, a college gymnasium at Northfield, and libraries in Minneapolis and other Minnesota towns. World War One came along, and we both went into the Service. I spent two years in the U. S. Army as First Lieutenant, Engineers, half the time in France. I returned home in July, 1919, and again went into architectural practice. It was tough going, and it seemed only a brief period before World War Two. My twenty-seven year old son, Jacob Stone, 5th, volunteered, when he was suddenly cut down by Polio.

Early in 1943, I went to California to engage in engineering work at the Kaiser Shipyards. Soon my good wife and daughter joined me, and the latter has since married. Her three-year old boy, Jacob Stone Dickinson will carry on the tradition of my father, a well-known civic leader in Minneapolis fifty years ago."

(Continued
from
Page 15)

The
Ground
Floor

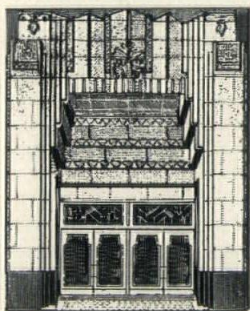


More often, the space will be used as a general area and props set up for the various backgrounds necessary.

Several smaller studios will be provided to take care of special conditions that may not work harmoniously in a general space. Color photography, photomicrog-

raphy, x-ray photography, et cetera, can best be carried out in smaller, less general areas because of special equipment or special lighting necessary.

Until fairly recently, north light in a studio was considered a prime requisite. Lighting methods and equip-



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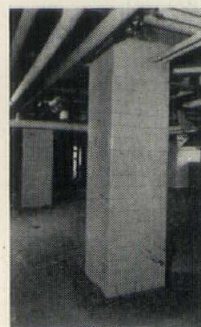
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ment in recent years have been improved to a point where that no longer holds true. Lights have been developed that closely simulate daylight and many photographers have dispensed with natural lighting altogether in their studios. However, several factors need be considered before passing judgment for or against one or the other method of lighting.

Sometimes a soft, even north light is a very desirable one when delicate low-key work is undertaken. In most cases, daylight alone is not sufficient to take care of the lighting requirements demanded by the various types of picture to be taken and daylight is supple-

mented by numerous types of lighting equipment. Aside from the intensity and type of lighting necessary, large glass areas may be desirable in a studio—or in any space—for their psychological effect on the students, models and instructors. It is sure to be a relief to the eyes and mind to be able to look up and out after long periods of concentration on close work. It would certainly be welcome if the view were to be an especially pleasant one such as offered by a park, stream or distant skyline of a city.

Wall space is valuable in a studio as it affords a background which can be used as is or against which props and materials can be placed. Where large glass areas are provided on the north wall, as will be in this school, wall space will be supplemented by the use of a great many movable screens and backdrops, large and small. The large partitions will be mounted on rubber wheels for movability and quiet. The walls, floors and ceilings of the studios will be very light in color, or white, to take advantage of reflected light.

The ceiling of the large studio will be necessarily high—anywhere from 12 to 30 feet—to allow for large props and overhead lights. Where possible, it will be desirable to have large overhead lights that could be suspended from ceiling tracks so the studio floor will be clear of as many wires as possible. Wires on the floor will not be entirely avoidable in that many types of lights will be required, among which are main source lights, flood lights, spots and arc and gas filled lamps. The latter two types emit light of extremely high intensity and are used for high speed photography. Where portrait work is carried on, fluorescent lighting will be provided because of the lower heat output and the absence of glare, which makes it easier for the sitter, who will be in one spot for long periods. Lighting for commercial photography should be mainly incandescent and flood lamps. The softness of the fluorescent is not suitable for commercial photography where strong contrast and highlighting are often utilized.

The smaller studios have the same general requirements that the large has but here daylight is not as important as in the larger studio in that these will be used for relatively short periods at a time. These studios will be used for specialized photography where the groups will be small. The ceiling need not be higher than in an average room.

(To Be Continued)

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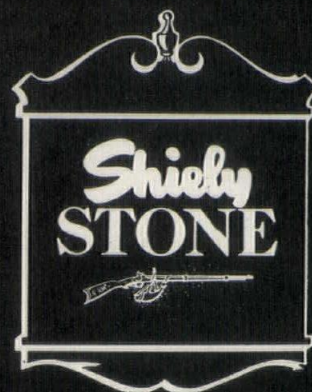
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